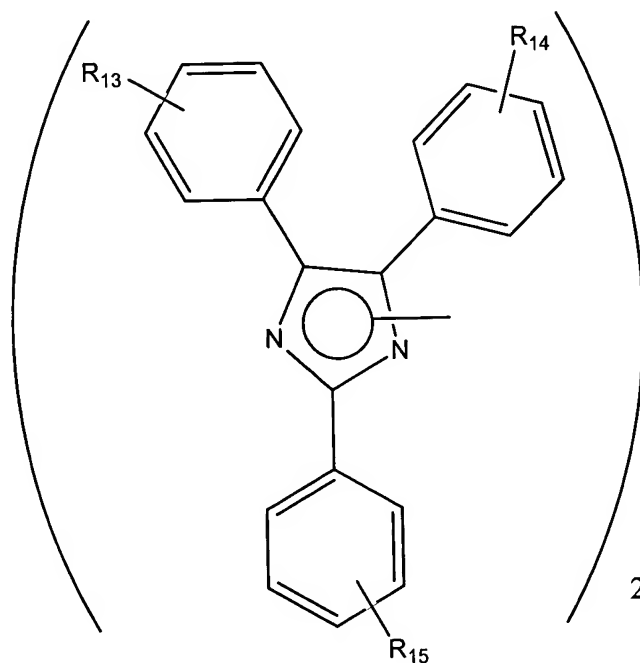


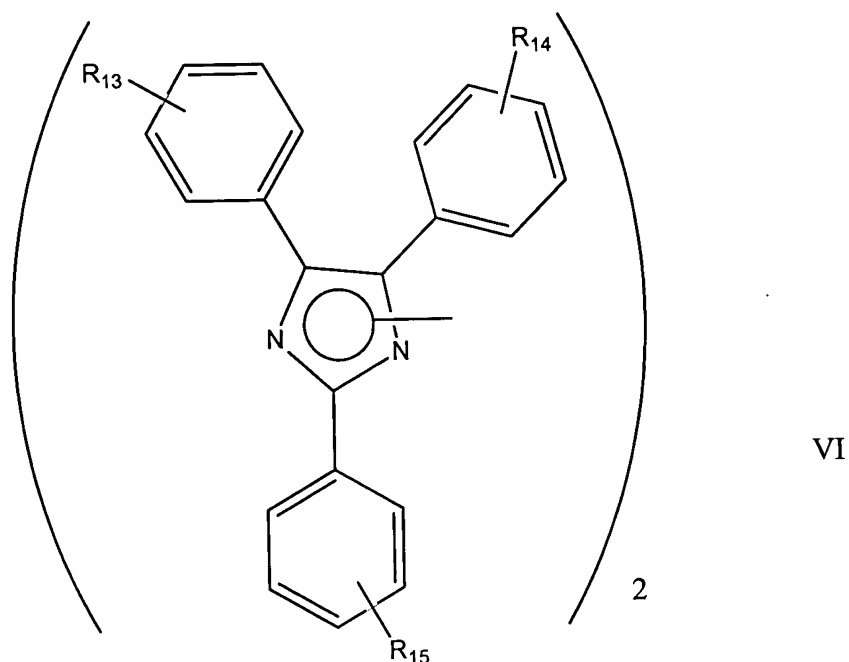
What is claimed is:

1. A compound comprising a photoinitiator joined to a hydrophilic carrier component.
2. The compound of claim 1, wherein the carrier component comprises a monomer, oligomer, polymer, plasticizer or surfactant.
3. The compound of claim 2, wherein the monomer is an acid functional monomer or a non-acid functional monomer.
4. The compound of claim 2, wherein the oligomer is a urethane oligomer.
5. The compound of claim 1, wherein the photoinitiator comprises an imidazole dimer, a benzophenone, an acetaphenone, an anthraquinone, a naphthaquinone, or a triazine-based compound.
6. The compound of claim 5, wherein the imidazole dimer is a hexaarylbiimidazole of the following formula:



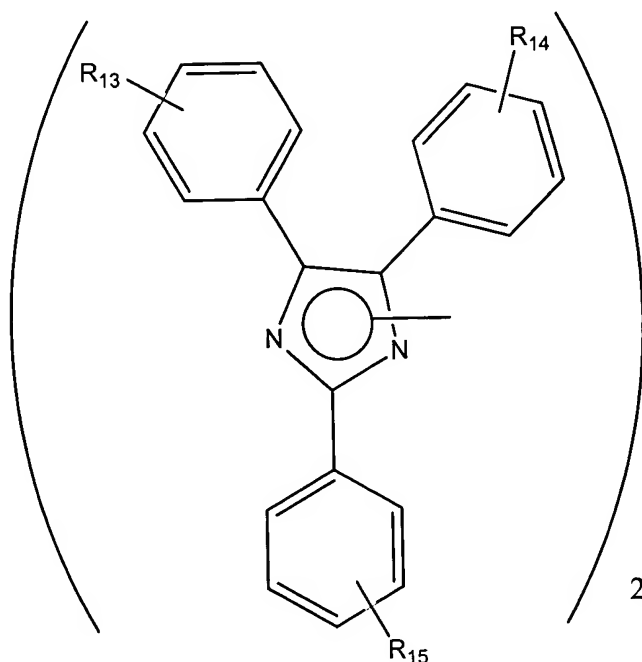
wherein R_{13} , R_{14} and R_{15} are the same or different and comprise hydrogen, unsubstituted or substituted alkyl, unsubstituted or substituted aryl, alkoxy, aryloxy, hydroxyl, aminyl, carboxyl, ester, thio, isocyanate, $-N(CH_2-OCH_3)_2$, hydroxyalkyloxy or alkylthio with the proviso that at least one of R_{13} , R_{14} or R_{15} is a reactive group that undergoes an

- addition or a condensation reaction with a reactive group of the carrier component to join the carrier component to the imidazole dimer, and R_{15} also may be a halogen.
7. The compound of claim 6, wherein R_{13} or R_{14} comprises hydroxyl, aminyl, (C_1-C_{12}) hydroxylalkyl, (C_1-C_{12}) aminylalkyl, or hydroxyalkyloxy, and R_{15} is a halogen.
 8. A photoresist comprising a compound with a photoinitiator joined to a hydrophilic carrier component.
 9. The photoresist of claim 8, wherein the photoinitiator comprises an imidazole dimer, a benzophenone, an acetaphenone, an anthraquinone, naphthaquinone, a triazine-based compound, or mixtures thereof.
 10. The photoresist of claim 9, wherein the photoinitiator is an imidazole dimer having the formula:



where R_{13} , R_{14} and R_{15} are the same or different and comprise hydrogen, unsubstituted or substituted alkyl, unsubstituted or substituted aryl, alkoxy, aryloxy, hydroxyl, aminyl, carboxyl, ester, thio, isocyanate, $-N(CH_2-OCH_3)_2$, hydroxyalkyloxy or alkylthio with the proviso that at least one of R_{13} , R_{14} or R_{15} is a reactive group which may undergo an addition or condensation reaction with a reactive group of the carrier component to join the imidazole dimer to the carrier component, and R_{15} may also be a halogen.

11. The photoresist of claim 10, wherein R_{13} or R_{14} comprises hydroxyl, aminyl, $(C_1$ to $C_{12})$ hydroxyalkyl, $(C_1$ to $C_{12})$ aminylalkyl, or hydroxyalkyloxy, and R_{15} is a halogen.
12. The photoresist of claim 8, further comprising plasticizers, rheology modifiers, dyes, fillers, film forming agents, strip enhancers, or mixtures thereof.
13. A method of forming a pattern on a substrate comprising:
 - a) disposing on a substrate a photoresist composition with a hydrophilic carrier component bonded to a photoinitiator component;
 - b) imaging the photoresist; and
 - c) developing the photoresist
14. The method of claim 13, wherein the photoinitiator component comprises an imidazole dimer, a benzophenone, an acetophenone, an anthraquinone, a naphthaquinone, a triazine-based compound, or mixtures thereof.
15. The method of claim 14, wherein the imidazole dimer has a general formula:



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where R_{13} , R_{14} and R_{15} are the same or different and comprise hydrogen, unsubstituted or substituted alkyl, unsubstituted or substituted aryl, alkoxy, aryloxy, hydroxyl, aminyl, carboxyl, ester, thio, isocyanate, $-N(CH_2—OCH_3)_2$, hydroxyalkyloxy or alkylthio with

the proviso that at least one of R_{13} , R_{14} or R_{15} is a reactive group which may undergo an addition or condensation reaction with a reactive group of the carrier component to join the imidazole dimer to the carrier component, and R_{15} also may be a halogen.

16. The method of claim 15, wherein R_{13} or R_{14} comprises hydroxyl, aminyl, (C_1 to C_{12})hydroxyalkyl, (C_1 to C_{12})aminylalkyl, or hydroxyalkyloxy, and R_{15} is a halogen.
17. The method of claim 12, wherein the substrate is a printed wiring board.